

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Plant Abstract

Element Code: PDBOROLOG0

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Lithospermum viride*

COMMON NAME: green puccoon, green gromwell, green stoneseed

SYNONYMS:

FAMILY: Boraginaceae

AUTHOR, PLACE OF PUBLICATION: Greene, Coult. Bot. Gaz. Vi. (1881) 158. 1881.

TYPE LOCALITY: Mexico, Coahuila, Sierra Madre, 40 miles south of Saltillo.

TYPE SPECIMEN: HT: GH-97473. E. Palmer 903, Jul 1880.

TAXONOMIC UNIQUENESS: The species *viride* is 1 of 18 in the genus *Lithospermum*.

DESCRIPTION: Perennial, arising from a small suffrutescent caudex crowning a woody taproot. Stems few to numerous, to 1 m (3.3 ft) tall, erect, 3-5 mm thick just above the base, simple or loosely and ascendingly branched in age, usually with a grayish indument made up of 2 types of hairs (spreading or rigid). Largest leaves near the middle of the stem to 8 cm (3.2 in) long and 3.2 cm (1.3 in) wide, ovate-elliptic to lanceolate, the apex acute, the upper surface scabrous with stiff erect bristles arising from discoid bases intermixed with shorter much less rigid hairs, the lower surface paler and somewhat velvety or strigose. Inflorescence simple or forked, terminal on the stems and branches, circinate, in age elongating, straightening to form erect very loosely flowered racemes 10-30 cm (4-12 in) long; calyx at anthesis 8-13 mm long, the lobes very unequal, linear, the fruiting calyx 10-18 mm long. Pedicel 2-10 mm long, ascending or occasionally decurved, lobes lance-linear; corolla greenish-yellow, with a very small limb, villose-hispidulous outside. Corolla tube cylindric, 1-3 cm long, 3-5 mm thick near the middle; corolla lobes ovate to elliptic, rounded, entire, spreading or recurved. Mericarps ovoid, usually plump, white or somewhat brownish, smooth or obscurely pitted, almost always with some pits along the base of the ventral keel. (Correll and Johnston, 1970).

AIDS TO IDENTIFICATION:

ILLUSTRATIONS: Color photo of Type (E. Palmer, GH-97473 in

<http://brimsa.huh.harvard.edu/cms-wb/specimens.jsp?id=127917>)

Color photo of Syntype (E.L. Greene, GH-97448 in

<http://brimsa.huh.harvard.edu/cms-wb/specimens.jsp?id=128412>)

Color photo of Syntype (E.L. Greene, NY-22562 in

<http://207.156.243.8/emu/vh/specimen.php?irn=593047>

TOTAL RANGE: Arizona, New Mexico, Texas, and northeastern Mexico.

RANGE WITHIN ARIZONA: Mule Mountains, Cochise County.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Perennial subshrub, shrub.

PHENOLOGY: May to October

BIOLOGY:

HABITAT: In Arizona, found in mixed scrub in limestone areas.

ELEVATION: 5,957 – 6,850 ft (1817-2089 m) in Arizona. In Chihuahua, Mexico, collected at 2000 and 2100 m (6,557 and 6, 885 ft).

EXPOSURE: In Arizona collected on SW-, N- and NE-facing 21-30% slopes.

SUBSTRATE: Martin limestone in the Tortugas association.

PLANT COMMUNITY: Mixed scrub. Associated species include: *Cercocarpus breviflorus* (= *C. montanus* var. *paucidentatus*, shaggy mountain-mahogany), *Dasyllirion wheeleri* (spoonflower), *Mortonia scabrella* (= *M. sempervirens* ssp. *scabrella*, rough saddlebush), *Pinus cembroides* (Mexican pinyon), and *Quercus pungens* (sandpaper oak) in Arizona. (SEINet accessed 2005).

POPULATION HISTORY AND TRENDS: Unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None

STATE STATUS: None

OTHER STATUS: None (USDI, BLM AZ 2005)
[Bureau of Land Management Sensitive (USDI, BLM AZ 2000)]

MANAGEMENT FACTORS:

PROTECTIVE MEASURES TAKEN:**SUGGESTED PROJECTS:**

LAND MANAGEMENT/OWNERSHIP: BLM – Tucson Field Office; State Land Department; Private.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

- Correll, D.S., and M.C. Johnston. 1970. Manual of the Vascular Plants of Texas. Texas Research Foundation. Renner, Texas. P. 1308.
- Harvard University Herbaria. Index of Botanical Specimens. <http://brimsa.huh.harvard.edu/>. (Accessed: 5/17/2005).
- Integrated Taxonomic Information System (ITIS). Retrieved 5/17/2005 from ITIS, <http://www.itis.usda.gov>.
- Missouri Botanical Garden - TROPICOS, Nomenclatural Data Base. *Lithospermum viride* Greene. http://mobot.mobot.org/cgi-bin/search_vast. (Accessed: 17 May 2005).
- NatureServe. 2005. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.2. NatureServe, Arlington, Virginia. Available: <http://www.natureserve.org/explorer>. (Accessed: May 17, 2005).
- Rickett, H.W. 1980. Wild flowers of the United States, the southwestern States. W.C. Steere, general ed. Volume Four, part two of three parts. The New York Botanical Garden, McGraw-Hill Book Company. New York, New York. P. 497.
- SEINet. Collections Search Result. Accessed 5/17/2005 at <http://seinet.asu.edu/collections/list.jsp>.
- The New York Botanical Garden. NYBG Specimens Detailed Results. <http://207.156.243.8/emu/vh/specimen.php?irn=593047>. (Accessed: 5/17/2005).
- USDA, NRCS. 2004. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- USDI, Bureau of Land Management. 2000. BLM Sensitive Species List for Arizona. Information Memorandum No. AZ-2000-018.
- USDI, Bureau of Land Management. 2005. Arizona BLM Sensitive Species List.

MAJOR KNOWLEDGEABLE INDIVIDUALS:**ADDITIONAL INFORMATION:**

Revised: 2002-04-18 (SMS)
2005-05-26 (SMS)

To the user of this abstract: you may use the entire abstract or any part of it. We do request, however, that if you make use of this abstract in plans, reports, publications, etc. that you credit the Arizona Game and Fish Department. Please use the following citation:

Arizona Game and Fish Department. 20XX (= **year of last revision as indicated at end of abstract**). X...X (= **taxon of animal or plant**). Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. X pp.